

Serial No. 10/088,732

Art Unit: 1617

### REMARKS

Applicants respectfully request that the amendment be entered in the specification. The amendment to the specification is of an editorial nature to correct an obvious error which occurred during preparation of the application. It would be clear to one skilled in the art that the partial esters of hydroxycarboxylic acids are known "anionic" materials. The term "nonionic" surfactants is an error since it is well known that compounds which contain an unesterified carboxylic acid group are known as anionic materials.

Before discussing the rejections over the prior art, Applicants will attempt to clear up a misunderstanding by the Examiner of the teachings of the present application. At page 13, the last paragraph of the official action, the Examiner states:

"Table 1 of Applicant's specification compares the foaming capacity and total irritation of (I) mixture of cocoalkyl oligoglucosides with partial esters of malic or tartaric acid with lauryl alcohol (Examples 1, 2, 4 and C4), (II) mixtures of cocoalkyl oligoglucosides with a full ester of citric acid (Example 3), and (III) cocoalkyl oligoglucosides alone (Examples C1, C2 and C3). Thus, the Table I shows results for a comparison between, for example, a composition of a cocoalkyl oligoglucoside (C<sub>12/14</sub>, e.g.) alone, versus a composition having a mixture of a cocoalkyl oligoglucoside (C<sub>12/14</sub>, e.g.) and either tartaric acid monolauryl ester or malic acid monolauryl ester."

Applicants respectfully request that the Examiner reconsider the understanding of the material set forth at page 26, Table I. Table 1 shows a comparison of the properties of C<sub>12/14</sub> cocoalkyl oligoglucoside, C<sub>8/18</sub> cocoalkyl oligoglucoside and C<sub>12/14</sub> cocoalkyl oligoglucoside tartrate alone or admixed with tartaric acid monolaurylester, Na salt, malic acid monolauryl ester, Na salt and citric acid dicocoylester, Na salt.

The Examiner has misunderstood the teachings of citric acid dicocoylester, Na salt.

**Serial No. 10/088,732**

**Art Unit: 1617**

This material is not a full ester as the Examiner states but a partial ester since the material is esterified at two of the three carboxyl groups and the third carboxyl group neutralized with a sodium ion. This clearly indicates that the composition is not a full ester but a partial ester in which two of the three carboxyl groups of the citric acid are esterified.

The compound C<sub>12/14</sub> cocoalkyl oligoglucoside tartrate is a compound formed by the esterification of tartaric acid with an alkylglycoside (class (d) shown in claim 1 of Wachter et al.). Applicants therefore respectfully submit that Table I shows a comparison of three different partial esters of a polybasic hydroxycarboxylic acid with two different oligoglycosides and a compound which falls within the teachings of Wachter et al. (US 5,770,185) of record in the present application.

The table clearly shows the improvement in foam stability (difference between basic foam and foam height after 20 mins.) and the total irritation score based on the C<sub>12/14</sub> cocoalkyl oligoglucoside alone. One can see by viewing the table that the C<sub>12/14</sub> cocoalkyl oligoglucoside and the C<sub>8/18</sub> cocoalkyl oligoglucoside have similar performance in regard to foam stability and irritation score. The C<sub>12/14</sub> cocoalkyl oligoglucoside tartrate alone shows a foam stability similar to the other cocoalkyl oligoglucosides but however shows an increased total irritation score. The addition of the tartaric acid monolauryl ester sodium salt to the C<sub>12/14</sub> cocoalkyl oligoglucoside tartrate improves the total irritation score but does not improve in fact it degrades the foam stability.

Applicants submit that the showing in Table I of the comparison between the various partial esters and the various cocoalkyl oligoglucosides is sufficient to show unexpected

**Serial No. 10/088,732**

**Art Unit: 1617**

results. Applicants respectfully submit that the group of compounds is small and every test shows the unexpected improvements in both the foam stability and the irritation score. Applicants therefore respectfully submit that the showing is sufficient to provide a basis for unexpected results in the application.

Applicants respectfully submit that they should not be required to show unexpected results for every possible combination of compounds which would fall within the claims. A reasonable showing in such a small group is sufficient to prove the unexpected properties of the composition claimed.

At page 9, first paragraph of the official action, the Examiner states:

"It is respectfully pointed out that instant claims 15 and 21 are product-by-process claims, as they recite that the components are "derived from" a fatty alcohol. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). See MPEP 2113."

Applicants respectfully submit that claims 15 and 21 are not product-by-process claims. Applicants submit that there are no process steps set forth in the claim. To have a process, there must be some positive steps which define the process. Applicants therefore respectfully request that the Examiner reconsider the understanding that the claims 15 and 21 are product-by-process claims.

At page 14, beginning at the third line from the end of the page and extending over to page 15, middle of the page, the Examiner seems to be indicating that since the range

**Serial No. 10/088,732**

**Art Unit: 1617**

in the ratio of tartaric monolauryl esters sodium salt to the C<sub>12/14</sub> cocoalkyl oligoglucoside provides only a small change in the foam stability and the total irritation score, the results are not sufficient to overcome the rejection on the basis of obviousness over the cited references.

Applicants respectfully submit that the change in the foam stability from 300 to 180 and 180 to 150 shows that the tartaric acid monolauryl esters sodium salt is effective in stabilizing the foam. It would appear from Examples 1 and 4, that the smaller amount of the tartaric acid monolauryl esters sodium salt on a percentage reduction basis is more effective than the larger concentration. However, the total irritations score for the 50:50 ratio of cocoalkyl oligoglucoside to tartaric acid monolauryl esters sodium salt is less than two-thirds of the irritation score of the 90:10 ratio mixture.

At the last paragraph beginning at the middle of page 15 of the official action, the Examiner again refers to Example 3 as utilizing the full ester of citric acid. Clearly, the sodium salt indicates that the ester is only a partial ester. Therefore, Applicants respectfully request that the Examiner reconsider the analysis in the paragraph which begins at the middle of page 15 of the official action. The analysis is clearly based on a misunderstanding that the citric acid dicocoyl ester sodium salt is a full ester and not a partial ester. If the material was a full ester, and all of the carboxyl groups had been esterified, the material could not be the sodium salt.

Before discussing the rejections over the prior art, Applicants deem it prudent to set forth what they consider to be their invention. As presently claimed, the invention is

**Serial No. 10/088,732**

**Art Unit: 1617**

directed to a composition comprising:

- (a) an oligoglycoside selected from the group consisting of alkyl oligoglycosides, alkenyl oligoglycosides and mixtures thereof;
- (b) a foam stabilizer selected from the group consisting of partial esters of tartaric acid with C<sub>6-22</sub> fatty alcohols, salts of partial esters of tartaric acid with C<sub>6-22</sub> fatty alcohols, partial esters of malic acid with C<sub>6-22</sub> fatty alcohols, salts of partial esters of malic acid with C<sub>6-22</sub> fatty alcohols, partial esters of citric acid with C<sub>6-22</sub> fatty alcohols, salts of partial esters of citric acid with C<sub>6-22</sub> fatty alcohols, and mixtures thereof; and
- (c) optionally, at least one active ingredient selected from the group consisting of cosmetic-active ingredients, pharmaceutical-active ingredients, and mixtures thereof with the proviso that (a) and (b) are employed in a ratio by weight of from about 60:40 to 40:60.

Claims 14-18 are directed to the composition of claim 13 containing various ranges of the fatty alcohols, the salts of the partial esters and particularly tartaric acid partial esters and malic acid partial esters. Claims 19-27 are directed to a process for enhancing the dermatological and ophthalmic mucus membrane compatibility of a cosmetic and/or pharmaceutical composition by adding to the composition a mucus membrane compatibility enhancing amount of a surfactant mixture containing an alkyl and/or alkenyl oligoglycoside and a foam stabilizer selected from the group of a partial ester set forth in claim 13. Claims 20-27 are directed to various limitations concerning the anions utilized, particular partial esters useful in the practice of the invention, and the amount of the material added to the composition.

**Serial No. 10/088,732**

**Art Unit: 1617**

Applicants respectfully submit that the invention as presently claimed is neither taught or suggested by the prior art references cited by the Examiner.

### **REJECTIONS UNDER 35 USC 103(a)**

Claims 13-16, 19-22 and 25-27 stand rejected under 35 USC 103(a) as unpatentable over Kahre et al. (U.S. 6,432,419) in view of Ira Weil (US 5,089,531). Applicants respectfully submit that Kahre et al. and Weil whether considered alone or in combination neither teach nor suggest the present invention. Kahre et al. is directed to a cosmetic or pharmaceutical emollient composition containing auxiliaries (I) nonionic surfactants selected from a group consisting of alkyl or alkenyl oligoglycosides and fatty acid-N-alkyl polyhydroxyalkylamides and (II) a fatty compound consisting of an oil selected from the group consisting of (a) polyol polyhydroxystearates and (b) hydroxycarboxylic acid esters wherein the fatty compound and the nonionic surfactant are present in a ratio by weight of 10:90 to 90:10 and (III) wherein the total quantity of auxiliaries and/or additives in a composition is from 1 to 50% by weight based on the weight of the composition. Applicants respectfully submit that Kahre et al. neither teaches nor suggests the present invention.

Kahre et al. requires that the hydroxycarboxylic acid ester be an oil. As one skilled in the art would understand, oils are generally liquid or viscous materials and not solids. The stipulation that the materials are oils means that the hydroxycarboxylic acid esters (g) must be the full esters. Applicants invite the Examiner's attention to Examples IX and X of

**Serial No. 10/088,732**

**Art Unit: 1617**

Weil which teaches that the disodium salts of monododecyl citrate, monotetradecyl citrate and monopentadecyl citrate are recovered as precipitates. This means that these compounds are solid materials and not an oil which is required in the Kahre et al. composition.

Applicants submit that since the partial esters are known solid materials and not the oil required in the Kahre et al. composition, it would be clear to one skilled in the art that Kahre et al. would neither teach nor suggest the composition of the present invention. There is no teaching or suggestion to replace the oil required in the Kahre et al. composition with the solid partial esters.

Applicants respectfully submit that the combination of an oil with an alkyl or alkylglycoside is far different from the use of a solid in combination with an oligoglycoside. Applicants therefore respectfully submit that Kahre et al. is deficient in neither teaching or suggesting using a partial ester of a polybasic hydroxycarboxylic acid in combination with an oligoglycoside.

The deficiencies in Kahre et al. are not cured by combination with Weil. Kahre et al. requires an oil material for inclusion in the composition. Weil discloses partial esters of polybasic hydroxycarboxylic acids which are solid materials. Applicants respectfully submit that there was no teaching or suggestion to replace the oil required in Kahre et al. with the solid materials disclosed in Weil. Applicants submit that oils and solids are different materials and there is neither teaching nor suggestion that the combination of the Weil solid with the oligoglycoside would have any beneficial effect or any utility. Applicants

**Serial No. 10/088,732**

**Art Unit: 1617**

therefore respectfully submit that a rejection under 35 USC 103(a) over Kahre et al. in view of Weil is untenable and respectfully request that the rejection be reconsidered and withdrawn.

Claims 13-15, 16-21 and 23-27 stand rejected under 35 USC 103(a) as unpatentable over Kahre et al. in view of Wachter et al. (US 5,770,185). Applicants respectfully submit that Kahre et al. and Wachter et al. whether considered alone or in combination neither teach nor suggest the present invention.

Kahre et al. is discussed above and it is noted that Kahre et al. requires that an oil component be mixed with the oligoglycoside to improve tactile properties of the mixture. Applicants respectfully submit that Wachter et al. neither teaches nor suggests the partial ester used on the practice of the present invention alone or in combination with an oligoglycoside.

Wachter et al. is directed to use of partial esters of optionally acetylated hydroxycarboxylic acids as esterase inhibitors. The examples compare the partial esters with the full esters of the optionally acetylated hydroxycarboxylic acids as esterase inhibitors.

Wachter et al. does not cure the deficiencies in Kahre et al. since there is neither teaching nor suggestion to utilize the partial esters of the hydroxypolycarboxylic acids which are known solids with an alkyl or alkenyl oligoglycoside. There is no mention in Wachter et al. that a mixture of the esters of the hydroxycarboxylic acid with an alkyl or alkenyl oligoglycoside would have any usefulness and in particular would act as a foam



**Serial No. 10/088,732**

**Art Unit: 1617**

stabilizer or reduce the irritation effect of the oligoglycoside material.

Wachter et al. discloses the reaction product of the hydroxy polybasic carboxylic acids with alkylglycosides. However, the reaction product is not related to a mixture of the partial ester and an alkyl or alkenyl oligoglycoside.

Applicants respectfully submit that there is neither teaching nor suggestion in Wachter et al. to utilize the partial esters of the hydroxy polybasic carboxylic acids with an alkyl or alkenyl oligoglycoside. There is neither teaching nor suggestion to substitute the partial esters of the hydroxy polycarboxylic acids with C<sub>6</sub>-C<sub>22</sub> alcohols which are known solids for the oil required in the Kahre et al. composition. Applicants therefore respectfully submit that a rejection of the claims under 35 USC 103(a) over a combination of Kahre et al. with Wachter et al. is untenable and Applicants respectfully request that the rejection be reconsidered and withdrawn.

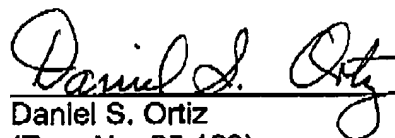
The Examiner's rejection appears to be based on the assumption that the oil required in the Kahre et al. composition is the same as the solid disclosed in Wachter et al. and Weil. Applicants respectfully submit that one skilled in the art would not consider a solid material an oil and would not attempt to substitute the solid material for the oil required in the Kahre et al. composition.

**Serial No. 10/088,732**

**Art Unit: 1617**

In view of the above discussion, Applicants respectfully submit that the application is in condition for allowance and favorable consideration is requested.

Respectfully submitted,



Daniel S. Ortiz  
(Reg. No. 25,123)  
Attorney for Applicants  
(215) 628-1141

Cognis Corporation, Patent Dept.  
300 Brookside Avenue  
Ambler, PA 19002

DSO/ras

H:\AMEND\2076.AMD.DOC